UNREDACTED VERSION OF EXHIBIT 3 SOUGHT TO BE FILED UNDER SEAL

Case 3:17-cv-00939-WHA Document 1657-5 Filed 09/18/17 Page 2 of 15 From: Aaron Peterson To: Kristinn Gudjonsson Sent: Fri, 7 Oct 2016 15:53:02 -0700 Subject: Re: Forensic review status? Cc: "Thomas E. Gorman" <tgorman@kvn.com>, Gary Brown <jhuber@kvn.com>, OTTO-KVN@kvn.com>, "Tammy Jih Murray ("Tom Lue")</jhuber@kvn.com></tgorman@kvn.com>
Hi All: I added "Machine History" and "Machine Timeline" to the machine forensic record doc for anthonyl. It should cover all of the machines that knows about, including their assignment and return dates. Note that there are a couple machines I added that showed up in as being used by anthonyl, but they are not "owned" by anthonyl, so it's possible that there is other activity that occurred on those machines. They do not have asset numbers, and the serial numbers are not found in p, so I don't have the allocation data to add them to the timeline though.
Machine forensic record doc for Anthonyl:
Let me know if there's any other data that you want me to add to that, Thanks, Aaron
On Fri, Oct 7, 2016 at 10:54 AM, Kristinn Gudjonsson wrote:
Aaron is working on the inventory information, he'll update the thread once that has been answered
On Fri, Oct 7, 2016, 08:21 Thomas E. Gorman < TGorman@kvn.com > wrote:
This is extremely helpful. We appreciate the excellent detective work.
I'm still interested in those machine/inventory records, so that I can try to piece together a timeline of all of Anthony's various computers. Please let me know if you'd like to chat about that further.
Thanks,
Tom
From: Kristinn Gudjonsson [mailto: Sent: Thursday, October 06, 2016 10:20 PM
To: Thomas E. Gorman; Gary Brown Cc: Jennifer A. Huber; Tammy Jih Murray ; Tom Lue ; OTTO-KVN Subject: Re: Forensic review status?

that is seeing that he was downloading a SVN client just befo	re visiting the site does seem to suggest that he hadn't visited
the SVN site before, and this was the first sync, as you also	suggested from looking at the SVN logs. And yes, this was
synced to the laptop.	
1.19 Table 157 (194 - 463) - 19 40 (1.425) Fro Sorting Sale	

On Thu, Oct 6, 2016 at 10:18 PM Kristinn Gudjonsson

Wrote:

Hi

OK, so looking at DNS requests to on 2015-12-11 around 18 I see:

And the first line in the log you sent us:

So this matches pretty nicely with the timing (DNS request made only few seconds earlier).

is a WiFi IP address for MTV-RLS1, again a nice match.

Looking at logs it looks like that IP address was associated to anthonyl0-w at that time.

2015-12-11 18:32:31 - 2015-12-11 18:32:31

There are also records showing the IP address association for that IP Address to the MAC address: which is the MAC address for anthonyl0-w computer that we have (the WIFI MAC address).

So yes, this was clearly Anthony from his Windows laptop that got later reformatted to a Goobuntu machine prior to being returned.

I also see that IP address visit this site:

http://downloads.sourceforge.net/project/tortoisesvn/1.9.2/Application/TortoiseSVN-1.9.2.26806-x64-svn-1.9.2.msi?

So it goes to show that Anthony had to install TortoiseSVN client just before visiting

On Thu, Oct 6, 2016 at 4:05 PM Thomas E. Gorman < TGorman@kvn.com > wrote: The administrator says: It's hosted on , which itself is From: Gary Brown [mailto:s Sent: Thursday, October 06, 2016 3:03 PM To: Thomas E. Gorman; Kristinn Gudjonsson Cc: Jennifer A. Huber; Tammy Jih Murray (); Tom Lue ; OTTO-KVN Subject: Re: Forensic review status? That IP is indeed a corp egress point. Follow-up: any idea (or can you ask) what the domain/IP address of their SVN solution is? On Thu, Oct 6, 2016 at 5:00 PM Thomas E. Gorman < TGorman@kvn.com > wrote: Here's the log with the timestamp'd activity. The source = the administrator of the SVN system that syncs those schematic files for authorized users in Chauffeur. The logs go back to late September / early October 2015, and this is the only time that AL accessed those files (so it wasn't part of his normal workflow). --Tom From: Gary Brown [mailto: Sent: Thursday, October 06, 2016 1:53 PM To: Thomas E. Gorman; Kristinn Gudjonsson Cc: Jennifer A. Huber; Tammy Jih Murray ; OTTO-KVN ; Tom Lue Subject: Re: Forensic review status?

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Case 3:17-cv-00939-WHA Document 1657-5 Filed 09/18/17 Page 5 of 15 Hey Tom,

Do you have any specific times for that activity? And out of curiosity, can you say what source that came from? We can likely attribute where in the corp infra he appeared looks like a corp egress IP but I'm on a plane). On Thu, Oct 6, 2016, 16:48 Thomas E. Gorman < TGorman@kvn.com > wrote: The goal, ultimately, is to figure out why he was doing whatever he was doing in December 2015 and January 2016. Specifically, we recently learned that on 12/11/2015, anthonyl used a Windows machine (@ Chauffeur's schematics for electronics and printed-circuit boards from a Chauffeur system. We don't have a host name for that machine, but If I'm understanding your emails, the only Windows machine assigned to Anthony on 12/11 was anthonyl0-w. Ten days later, Anthony wiped that machine and reformatted with the Goobuntu OS, which doesn't make a ton of sense because Anthony already had a Goobuntu workstation and a Goobuntu laptop. He never used anthonyl0-w again. And then the day before he quit, he wiped his other Goobuntu laptop. That's pretty suspicious, right? It sounds like we should pull the full machine record history from for any machine that was assigned to Anthony in the last couple of years. I'm not interested in machines that he turned back in in 2013 or 2014. But if he had access to the computer in 2015, I think we should pull the records. Ultimately, I'm trying to develop a timeline of what computers AL was using over time, why he was using that particular machine (to the extent that might be recorded in a ticket somewhere), what OS they were running, when they were reformatted, why they were reformatted, etc. Please let me know if you have any questions, or if you'd like to do a GVC (maybe to walk through what sorts of records are available). Thanks, --Tom From: Kristinn Gudjonsson [mailto Sent: Wednesday, October 05, 2016 10:07 PM To: Thomas E. Gorman; Gary Brown Cc: Jennifer A. Huber; Tammy Jih Murray ; OTTO-KVN ; Tom Lue Subject: Re: Forensic review status?

Just before I start digging into the records you are just looking for when the machines got issued to anthony to get dates of when he got the machine and when it got reformatted?
Regarding the other question:
+ Workstation OS: looking at tick/16378776 from 2015-11-05 suggests it was running Goobuntu, witch comments such as: "Your HP Z420 workstation with Goobuntu hasn't been on the network in a while and not up to date in Armada which is required to get a certificate". Looking at issued certificates I can see the machine that's referenced there, uccle2.mtv., which again suggests a Goobuntu machine. But I cannot seem to find this machine in the records seem to not be available in the UI anymore. I may have to dig into further archives to find anything there.
+ on 2015-12-11. Sorry so that I don't have to go through all the data, where did that IP address come from? (this is a NAT IP address for MTV Googleplex)
+ And for machine record history, yes we have that information either stored in inventory system, there the full audit trail of the machine is stored.
+ anthonyl0-w [asset 710739]: originally the machine was assigned to a Noogler that traded the machine in quickly for A chromeOS, then it got re-assigned to anthonyl on 2013-07-22 [then the machine is marked as pending pickup by anthonyl]. shows two distinct records one for 2015-11-30 for (Windows) and then a second one for 2015-12-21, which is a Goobuntu where Anthony is asking for a reformat of this management.
+ There is also this: which is a from 2012 about another Windows machine that Anthony had at that time, but that's long time ago, machine that has since been repurposed long time ago

Case 3:17-cv-00939-WHA Document 1657-5 Filed 09/18/17 Page 7 of 15 + Anthony has other Windows machines according to machine certs issued to him, anthonyll-w.ad and anthonyl2-
w.ad, but seem to be used in 2013 and 2014.
On Wed, Oct 5, 2016 at 5:23 PM Thomas E. Gorman < TGorman@kvn.com > wrote:
Was the workstation a windows machine? Do you know what IP address it used? Or, alternatively, do you know who used 216.239.45.222 on 12/11/2015?
Re machine records, your Forensic Record contains links to contain some history to explain when the machines were issued, etc. Maybe that information is really in what you called "inventory records." I'd be interested in the Chromebook inventory records, too.
Really, though I'm just trying to understand this strange sequence with anthonyl0-w. I've got the reformat date (12/21/2015). Cayou confirm the creation date for this machine? In your notes, I thought that it said 11/30/2015.
If that timing is right, then it sounds like AL came back from Thanksgiving break, obtained a Windows laptop, and then three weeks later he reformatted it to Goobuntu and never used it again. On Dec. 11—in the middle of that three-week window—an unidentified Windows machine at 216.239.45.222 (which is registered to Google) used AL's login to sync all of Chauffeur's electronic schematics and PCB layouts. Those aren't the crown jewels, but assuming AL used this laptop to sync those files, I thir the sequence is fishy.
Tom
From: Kristinn Gudjonsson [mailto] Sent: Wednesday, October 05, 2016 4:58 PM
To: Thomas E. Gorman; Gary Brown
Cc: Jennifer A. Huber; Tammy Jih Murray ; Tom Lue ; Tom Lue ; OTTO-KVN
Subject: Re: Forensic review status?

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

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OK, so to clarify a bit. Looking at inventory records Anthony had two laptops assigned to him, anthonyl0-w (a Windows machine) and a Thinkpad (Goobuntu) laptop. He also had a workstation (asset tag 1028251). There also seemed to be a chromebook assigned as well at one point.

- The workstation (1028251) never got sent to us, that machine got returned on 2016-02-09 and re-formatted on 02-18 by FieldTechs and re-assigned to another user on 02-24
- The laptop anthonyl0-w was a Windows machine (naming, all records, etc) but on 2015-12-21 it got re-formatted as a Goobuntu machine and only used for few minutes after that format.
- The laptop anthony-glaptop was a Thinkpad and formatted as a Goobuntu. That machine got formatted on 2016-01-26 (the day before Anthony left Google) as a Goobuntu as it seems, but so I'm unable to see if there was any activity there.

Regarding the two laptops, by reformatting the drive it is made essentially unusable for any analysis since the drives are encrypted. As soon as you format it you overwrite the first parts of the drive which makes decrypting the unallocated space extremely hard/difficult. Same goes to the other laptop. That means that out of three machines, one got returned to inventory and formatted/re-assigned, and the two laptops got re-formatted presumably by Anthony before being returned.

We haven't attempted to dig into old logs from the machines to gather information but it will most likely not yield alot (what processes are run, DNS requests made, HTTP requests, etc). Most of the data that we've seen so far that's been of value has been in Chrome history and chat logs, all of which would be local on the machine itself.

And to answer the questions:

- There is no backup of the hard drives prior to the formatting
- · What machine records are you looking for?
- Not sure why
 I've not been able to answer that question yet

On Wed, Oct 5, 2016 at 3:03 PM Thomas E. Gorman < TGorman@kvn.com > wrote:

+Tammy, Tom, rest of our KVN team.

	I'm pulling some more people into this thread because this strange behavior in December 2015 might be pretty important.
	Please let me know when you think you'll be able to address these questions.
	Thanks,
	Tom
o: 'Krist c: Jenn	From: Thomas E. Gorman ednesday, October 05, 2016 2:53 PM tinn Gudjonsson'; Gary Brown ifer A. Huber : RE: Forensic review status?
m confu	used by the analysis notes and was hoping you could help me clear this up.
	Anthonyl0-glaptup had a windows installation from November 2013 until March 30, 2015. Then it was reformatted with Goobuntu.
	Late in 2015, AL used anthonyl0-w as a windows machine. That's only for three weeks, from 2015-11-30 until 2015-12-21, at which point he reformatted it to Goobuntu, and never used it again.
	Then, the day before he quits, he reformats the first laptop and fails to
	Did AL have a desktop workstation?
	Can you forward the machine records? I'm trying to understand why he had two laptops, and why they switched OS like this. If I've got the timeline down, it's weird. He synced a bunch of Chauffeur hardware designs to a windows machine on 12/11/2015. If he didn't have a desktop, then that's anthonyl0-w, which he wipes 10 days later. That's weird, right?
	Also, why didn't on 1/26/2016?

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Case 3:17-cv-00939-WHA Document 1657-5 Filed 09/18/17 Page 10 of 15 And is there new backup of his hard drives prior to these two reformatting incidents? Thanks, --Tom From: Kristinn Gudjonsson [mailto: Sent: Friday, September 30, 2016 2:39 PM To: Thomas E. Gorman; Gary Brown Cc: Jennifer A. Huber Subject: Re: Forensic review status? Hi Sorry for the late reply, but I redid my analysis work on Anthony's two machine and put the details into the host tracking folder, you can read about it here: Essentially it boils down to ,he had two laptops, one Windows and one Linux. He reformatted his Linux laptop the day before he quit with an encrypted Goobuntu machine that is not . The Windows machine also got reformatted as a Goobuntu machine, but it looks like it only got used for one day, and had very minimal use since it got reformatted.

Following up on this query. Can you please explain why AL's devices were unreadable? If he wiped his devices, we need the details.

On Wed, Sep 28, 2016 at 7:21 PM Thomas E. Gorman < TGorman@kvn.com > wrote:

Kristinn-

Case 3:17-cv-00939-WHA Document 1657-5 Filed 09/18/17 Page 11 of 15 Also, per the attached email, can you clarify whether AL failed to return his corporate devices? Thanks, --Tom From: Thomas Gorman < TGorman@kvn.com> Date: Wednesday, September 14, 2016 at 7:44 PM To: Gary Brown - , Kristinn Gudjonsson Cc: Jennifer Huber < JHuber@kvn.com> Subject: Re: Forensic review status? When you say that AL's computer couldn't , does that mean he wiped the HD and re-installed OS X (and thereby ? Do we know WHEN he reinstalled the OS? Is there an innocent explanation for this --Tom From: Gary Brown Date: Wednesday, September 14, 2016 at 2:00 PM To: Thomas Gorman <TGorman@kvn.com>, Kristinn Gudjonsson Cc: Jennifer Huber < JHuber@kvn.com> Subject: Re: Forensic review status? I'm free for the next half hour, otherwise after 4p. On Wed, Sep 14, 2016, 13:53 Thomas E. Gorman < TGorman@kvn.com > wrote:

Can we schedule a GVC to get caught up on your status? What times are good for you?

Tom
From: Gary Brown [mailto: Sent: Wednesday, September 14, 2016 10:30 AM
To: Thomas E. Gorman; Kristinn Gudjonsson Cc: Jennifer A. Huber
Subject: Re: Forensic review status?
On Tue, Sep 13, 2016 at 3:28 PM Gary Brown wrote:
Some analyses may be pending, but:
- I can, this evening, put together who got reimaged right before they left
- both of anthonyl@'s laptops were
- rradu0-w and were reimaged on 8/2 and 8/3, respectively, but their last badgings in office were 7/28 and 7/22, respectively. Not sure who/how these got reimaged
- I will ask the analysts to indicate whether history was wiped and any "interesting items" in the "Current Status/Conclusions" section of host tracking docs.
- These should be ready
On Tue, Sep 13, 2016 at 3:19 PM Thomas E. Gorman < TGorman@kvn.com > wrote:
Kristinn / Gary—
Have you finished reviewing all the Xoogler laptops? We're interested in documenting some of your findings,

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Thanks,

Case 3:17-cv-00939-WHA Document 1657-5 Filed 09/18/17 Page 13 of 15 in particular the findings about wiped drives and deleted Chrome history. Thanks, --Tom Thomas E. Gorman Attorney at Law 415 676 2292 direct | vCard | tgorman@kvn.com 633 Battery Street, San Francisco, CA 94111-1809 | 415 391 5400 main | kvn.com ----- Forwarded message -----From: Thomas Gorman < tgorman@kvn.com> To: Ryan Blackhart , Raquel Small Kristinn Gudjonsson Cc: Natalie Parker , Tom Lue Demarron Berkley , Lori Aintablian , Moe Mizukami >, OTTO-KVN <<u>OTTO-KVN@kvn.com</u>>, Tammy Jih Murray >, Michael Pfyl Date: Mon, 19 Sep 2016 20:06:34 -0700 Subject: Re: Anthony L. -- what have we collected? +Kristinn

@Kristinn: did Anthony L turn in his two corporate devices? I know you were examining a couple images. Do you know if those came from the same corporate devices that Ryan is referring to below?

Thanks,

--Tom

From: Ryan Blackhart
Date: Monday, September 19, 2016 at 5:09 PM
To: Raquel Small
Cc: Natalie Parker Tom Lue , Lori Aintablian , Moe Mizukami
>, OTTO-KVN <otto-kvn@kvn.com>, Tammy Murray</otto-kvn@kvn.com>
Michael Pfyl
Subject: Re: Anthony L what have we collected?
Resent-From: <otto-kvn@kvn.com></otto-kvn@kvn.com>
Let's collect it all. Thanks.
On Sep 19, 2016 4:59 PM, "Raquel Small" wrote:
on sep 17, 2010 his 1 hi, 1 higher shall
Thanks Ryan. In the calendar ticket for Anthony, is there a specific date range you want me to focus on?
Thanks!
Reguel
Raquel
On Mon, Sep 19, 2016 at 4:04 PM, Ryan Blackhart wrote:
Hi Tammy,

Please see below for answers to your questions:

- Corporate Devices Anthony had two corporate devices but neither were returned at the time of his departure and the Asset Management team was able to provide any additional information. That being said, we have been unable to preserve/collect any data from this source.
- Email Anthony's email is on hold and is currently being preserved. It has also been collected and reviewed to some extent.
- Docs/Drive Anthony's Docs/Drive account has been placed on hold and currently being preserved.
- Calendar Anthony's calendar data is being preserved indefinitely as is all calendar data. This data has not been collected. Given the sensitivity here, Raquel, can you submit a ticket to collect this data.
- · Google Voice logs We have yet to look into this data source. Moe, do you know how long this information is being preserved?
- Unique Chauffeur Data Sources question for the KVN Team: have we uncovered any other potentially relevant data sources during
 the various interviews with Chauffeur employees?

	Thanks,	
	Ryan	
	On Mon, Sep 19, 2016 at 2:54 PM, Tammy Jih Murray wrote:	
	Confidential. Attorney-Client Privilege	
	Hi Team,	
	I'm still getting up to speed on the internal inves	
with regard	rds	
Kristinn		
	likely cause for all spleling mistakes in this email results from it being written by large thumbs on otherwise they were written on a real keyboard and I've got no excuses	ı a tiny mobile